Abstract
Photon stimulated ion desorption (PSID) studies have been performed in poly(vinyl chloride) (PVC) and poly(vinylidene chloride) (PVDC) using synchrotron radiation, covering from valence to core electron (Cl 2p and C 1s) energy ranges. Data acquisition was performed at the TGM beam line from the Brazilian Synchrotron Light Source (LNLS), operating in a multi-bunch mode and using a time-of-flight mass spectrometer (TOFMS). A new pulsed system developed uses as a trigger for the TOF-MS experiments the pulsed extraction high voltage applied to the sample. Ionic desorption from PVC and PVDC shows strong selectivity in the formation of chlorine ions around the Cl 2p-edge while very similar fragmentation patterns are observed for the other energies studied.

Keywords
Photon stimulated ion desorption (PSID); Polymers; Synchrotron radiation